FILE 'STNGUIDE' ENTERED AT 20:26:08 ON 05 SEP 2001

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug 31, 2001 (20010831/UP).

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L6 ANSWER 8 OF 10 USPATFULL

SUMM For example, for treating or preventing chronic nonbacterial prostatitis, acute or chronic prostatitis, acute bacterial prostatitis, prostatodynia, congestive prostatitis, epididymitis, post-vasectomy **pain** and inflammation and/or urethritis in a patient a tachykinin receptor antagonist may be given in combination with such compounds as: an alpha blocker, especially an alpha-la blocker, such as **doxazosin**, indoramin, **prazosin**, tamsulosin, or terazosin; a 5-alpha reductase inhibitor, such as dutasteride or finasteride, especially a type 2 5-alpha reductase inhibitor, a dual 5-alpha reductase inhibitor, or combinations of type 1 and type 2 5-alpha reductase inhibitor; a prostate specific antigen conjugate; an antibiotic, including amikacin, amoxicillin, ampicillin, carbenicillin, cefaclor, cefadroxil, cefamandole, cefazolin, cefoxitin, cephalexin, cephalothin, cephapirin, cephradine, ciprofloxacin, cotrimoxazole, demeclocycline, doxycycline, erythromycin, gentamicin, kanamycin, methenamine hippurate, methenamine mandelate, minocycline, nalidixic acid, nitrofurantoin, norfloxacin, ofloxacin, sulfamethoxazole, sulfonamides, tetracycline, ticarcillin, tobramycin, trimethoprimin, or trimethoprimin-sulfamethoxazole, in particular a carbapenem antibiotic; anticholinergic agents, such as atropine, hyoscyamine, flavoxate, propantheline, or oxybutynin; a non-steroidal antiinflammatory, such as acetomeniphen, alprostadil, asprin, diclofenac, etodolac, ibuprofen, indomethacin, ketoprofe, ketorolac tromethamine, misoprostol, nabumetone, naproxen, naproxen sodium, oxaprozin, piroxicam, spironolactone, spironolactone with hydrochlorothiazide, or trovafloxacin; a corticosteroid; a selective cyclooxygenase-2 inhibitor, such as celecoxib, parecoxib, rofecoxib, valdecoxib, meloxicam, flosulide, nimesulide, MK-663, NS 398, DuP 697, SC-58125, SC-58635, or RS 57067; or a **topical** urinary analgesic, such as phenazopyridine, and salts thereof, and combinations thereof, and the like, as well as admixtures and combinations thereof.

ACCESSION NUMBER:	2000:50705 USPATFULL
TITLE:	Method for treating or preventing chronic nonbacterial prostatitis and prostatodynia
INVENTOR(S):	Guess, Harry A., Chapel Hill, NC, United States Waldstreicher, Joanne, Scotch Plains, NJ, United States Pearson, Jay Dee, Hatfield, PA, United States
PATENT ASSIGNEE(S):	Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6054455		20000425	
APPLICATION INFO.:	US 1999-313002		19990517	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1998-85866P	19980515	(60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Henley, III, Raymond
LEGAL REPRESENTATIVE:	Thies, J. Eric, Rose, David L.
NUMBER OF CLAIMS:	10
EXEMPLARY CLAIM:	1

CAPLUS COPYRIGHT 2003 ACS

IT 50-55-5, Reserpine 50-60-2, Phentolamine 55-65-2, Guanethidine
55-73-2, Bethanidine 59-41-6, Bretylium 59-42-7, Phenylephrine
59-96-1, Phenoxybenzamine 59-98-3, Tolazoline 1131-64-2 4205-90-7,
Clonidine 19216-56-9, **Prazosin**
RL: BIOL (Biological study)
(sympathetically-maintained **pain topical** treatment
with)

ACCESSION NUMBER: 1991:623487 CAPLUS
DOCUMENT NUMBER: 115:223487
TITLE: Compositions and methods of treatment of sympathetically-maintained pain using .alpha.-adrenergic antagonists
INVENTOR(S): Campbell, James N.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9112806	A1	19910905	WO 1991-US1318	19910226
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5070084	A	19911203	US 1990-485156	19900226
EP 517850	A1	19921216	EP 1991-906357	19910226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL				
JP 05503539	T2	19930610	JP 1991-506069	19910226
JP 2786538	B2	19980813		
US 5447947	A	19950905	US 1992-905496	19920625

PRIORITY APPLN. INFO.:
US 1990-485156 19900226
US 1991-661554 19910226
WO 1991-US1318 19910226

=>

L5 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2001 ACS
AN 1997:354939 CAPLUS
DN 127:61054
TI Effects of transmural field stimulation in isolated smooth muscle of human
rectum and internal anal sphincter
AU Glavind, E. B.; Forman, A.; Madsen, G.; Tottrup, A.
CS Dep. Obstetrics Gynecology, Dep. Surgery L, Univ. Hospital Aarhus Surgical
Res. Unit,, Aarhus, DK-8000, Den.
SO Am. J. Physiol. (1997), 272(5, Pt. 1), G1075-G1082
CODEN: AJPHAP; ISSN: 0002-9513
PB American Physiological Society
DT Journal
LA English
CC 2-8 (Mammalian Hormones)
AB Smooth muscle prepns. from the circular muscle layer of the most distal rectum and the proximal and distal human internal anal sphincter (IAS) mounted in organ baths to record isometric tension developed spontaneous tension. Transmural elec. field stimulation (TMS) induced frequency- and impulse duration-dependent relaxations sensitive to tetradotoxin in the stimulation range of 0.5-40 Hz and 0.04-0.6 ms. Poststimulus contractions were most frequent and prominent in rectal prepns. Maximal relaxations were comparable in the three locations and were achieved at 10 Hz and 0.4 ms. The frequency inducing half-maximal response was lower in rectal strips compared with IAS. Phentolamine (10-6 M) enhanced relaxations and diminished off-contractions at 40 Hz in distal IAS. N.omega.-nitro-L-arginine (L-NNA) concn. dependently inhibited both relaxations and off-contractions (10 Hz, 0.4 ms). The pD2 values (-log E50) of L-NNA were lower in rectal muscle compared with those in IAS. L-Arginine (10-4 M) inhibited the blocking effect of L-NNA. In one-half of the prepns., L-NNA reversed the relaxations to duration contractions (15-40 Hz), which were inhibited by atropine in rectal prepns. and by phentolamine in IAS. In conclusion, excitatory innervation of the IAS is .alpha.-adrenergic and cholinergic in the rectum. A product of the L-arginine-nitric oxide pathway mediates the TMS-induced inhibition of the muscle and is also involved in poststimulus contractions.
ST nerve adrenergic cholinergic rectum analysis sphincter
IT Cholinergic neurons
Contraction (muscle)
Neuromuscular transmission
Rectum
Smooth muscle
(adrenergic and cholinergic regulation of transmural field stimulation effects in isolated smooth muscle of human rectum and internal anal sphincter)
IT Intestine
(internal anal sphincter; adrenergic and cholinergic regulation of transmural field stimulation effects in isolated smooth muscle of human
rectum and internal anal sphincter)
IT Nervous system
(**.alpha.-adrenergic; adrenergic** and
cholinergic regulation of transmural field stimulation effects in isolated smooth muscle of human rectum and internal anal

sphincter)
IT 10102-43-9, Nitric oxide, biological studies
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BIOL (Biological study); PROC (Process)
(adrenergic and cholinergic regulation of transmural field stimulation effects in isolated smooth muscle of human rectum and internal anal sphincter)

L19 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2001 ACS

AB Fecal incontinence and anal itch can be treated by administration, more particularly by local application to the anus, of an **.alpha. adrenergic blocker**, nitric oxide synthase **inhibitor**, prostaglandin F2.alpha., dopamine, morphine, .beta.-**blockers**, and 5-Hydroxytryptamine. The patients who benefit most from the invention are those who have a normal or low max. anal resting pressure and a structurally intact internal **anal sphincter** muscle, and patients who have had major bowel resection and reanastomosis. Phenylephrine-HCl was added to a base cream to form.

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ACCESSION NUMBER: 1998:479406 HCAPLUS
DOCUMENT NUMBER: 129:86054
TITLE: Pharmaceutical composition for treating fecal incontinence and anal itch
INVENTOR(S): Kamm, Michael Albert; Phillips, Robin Kenneth Stewart
PATENT ASSIGNEE(S): UK
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9827971	A1	19980702	WO 1997-GB3525	19971223
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9853315	A1	19980717	AU 1998-53315	19971223
AU 728889	B2	20010118		
EP 946155	A1	19991006	EP 1997-950311	19971223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
JP 2001507020	T2	20010529	JP 1998-528550	19971223

PRIORITY APPLN. INFO.:
GB 1996-26739 A 19961223
GB 1996-26750 A 19961223
GB 1997-3309 A 19970218
WO 1997-GB3525 W 19971223

L19 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2001 ACS

TI Nervous control of the internal **anal sphincter** of the cat

AB Hypogastric nerve stimulation elicited slow time course depolarization responses in **anal sphincteric** circular muscle of cats, which were abolished by **.alpha.-adrenergic blockers**. Stimulation of parasympathetic outflow to the internal **anal sphincter** (2nd ventral sacral root, VS2) inhibited spontaneous elec. activity of the circular muscle, apparently through intramural nonadrenergic, noncholinergic (purinergic) **inhibitory** neurons. Rectal distension also inhibited **anal sphincteric** circular muscle via nonadrenergic, noncholinergic intramural neurons. Longitudinal muscle responses to VS2 or hypogastric nerve stimulation indicated that the muscle receives excitatory innervation from preganglionic parasympathetic nerves connected with intramural cholinergic neurons, and **inhibitory** sympathetic innervation from noradrenergic axons running in the hypogastric nerves.

Responses of circular muscle to simultaneous VS2 and hypogastric nerve.

IT Nervous system
(parasympathetic, **anal sphincter** muscle regulation by)
IT Nervous system
(sympathetic, **anal sphincter** muscle regulation by)
ACCESSION NUMBER: 1981:100656 HCAPLUS
DOCUMENT NUMBER: 94:100656
TITLE: Nervous control of the internal **anal sphincter** of the cat
AUTHOR(S): Bouvier, M.; Gonella, J.
CORPORATE SOURCE: Dep. Neurophysiol. Veg., Inst. Neurophysiol. Psychophysiol., Marseille, 13274/2, Fr.
SOURCE: J. Physiol. (London) (1981), 310 457-69
CODEN: JPHYA7; ISSN: 0022-3751
DOCUMENT TYPE: Journal
LANGUAGE: English

L19 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2001 ACS
TI Effects of rectal distension on the internal **anal sphincter** of cats
AB The effect of i.v. autonomimetic drugs and blocking drugs on the contractions and relaxations of the internal **anal sphincter** were studied in anesthetized cats with a miniature air-filled intraluminal balloon placed in the middle 3rd of the rectum. Acetylcholine. . . by atropine. Noradrenaline [51-41-2] and adrenaline [51-43-4] produced biphasic responses of contraction and relaxation which were abolished by the .alpha.-receptor **blocker** dihydroergotamine tartrate. The relaxation response to isoprenaline [7683-59-2] was abolished by the .beta.-adrenergic **blocker** propranolol. A prolonged relaxation of the internal sphincter occurred upon rectal distension which was abolished by the ganglion **blocker** hexamethonium. These expts. suggest that the tone of the internal **anal sphincter** is under complex neural control involving cholinergic and .**alpha**.-**adrenergic** motor pathways and .beta.-adrenergic and noncholinergic nonadrenergic **inhibitory** pathways. Reflex responses to rectal distension are influenced by all of these mechanisms.
IT 51-41-2 51-43-4 51-84-3 7683-59-2
RL: BIOL (Biological study)
(internal **anal sphincter** contraction in response to)
ACCESSION NUMBER: 1972:522160 HCAPLUS
DOCUMENT NUMBER: 77:122160
TITLE: Effects of rectal distension on the internal **anal sphincter** of cats
AUTHOR(S): Garrett, J. R.; Howard, E. R.
CORPORATE SOURCE: King's Coll. Hosp. Med. Sch., London, Engl.
SOURCE: J. Physiol. (London) (1972), 222(1), 85P-86P
CODEN: JPHYA7
DOCUMENT TYPE: Journal
LANGUAGE: English

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	30.46	143.21

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.76	-2.32

L19 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2001 ACS
AN 1972:522160 HCAPLUS
DN 77:122160
TI Effects of rectal distension on the internal **anal sphincter** of cats
AU Garrett, J. R.; Howard, E. R.
CS King's Coll. Hosp. Med. Sch., London, Engl.
SO J. Physiol. (London) (1972), 222(1), 85P-86P
CODEN: JPHYA7
DT Journal
LA English
CC 1-5 (Pharmacodynamics)
AB The effect of i.v. autonomimetic drugs and blocking drugs on the contractions and relaxations of the internal **anal sphincter** were studied in anesthetized cats with a miniature air-filled intraluminal balloon placed in the middle 3rd of the rectum. Acetylcholine [51-84-3] caused sphincter contraction which was blocked by atropine. Noradrenaline [51-41-2] and adrenaline [51-43-4] produced biphasic responses of contraction and relaxation which were abolished by the .alpha.-receptor **blocker** dihydroergotamine tartrate. The relaxation response to isoprenaline [7683-59-2] was abolished by the .beta.-adrenergic **blocker** propranolol. A prolonged relaxation of the internal sphincter occurred upon rectal distension which was abolished by the ganglion **blocker** hexamethonium. These expts. suggest that the tone of the internal **anal sphincter** is under complex neural control involving cholinergic and .**alpha**.-**adrenergic** motor pathways and .beta.-adrenergic and noncholinergic nonadrenergic **inhibitory** pathways. Reflex responses to rectal distension are influenced by all of these mechanisms.
ST sphincter contraction adrenergic; cholinergic sphinter contraction; adrenaline rectal distension; noradrenaline rectal distension; acetylcholine rectal distension
IT Intestine
(sphincter anae, autonomic control of)
IT 51-41-2 51-43-4 51-84-3 7683-59-2
RL: BIOL (Biological study)
(internal **anal sphincter** contraction in response to)

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L19 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2001 ACS
AN 1981:100656 HCAPLUS
DN 94:100656
TI Nervous control of the internal **anal sphincter** of the cat
AU Bouvier, M.; Gonella, J.
CS Dep. Neurophysiol. Veg., Inst. Neurophysiol. Psychophysiol., Marseille, 13274/2, Fr.
SO J. Physiol. (London) (1981), 310 457-69
CODEN: JPHYA7; ISSN: 0022-3751
DT Journal
LA English
CC 13-13 (Mammalian Biochemistry)
AB Hypogastric nerve stimulation elicited slow time course depolarization responses in **anal sphincteric** circular muscle of cats, which were abolished by **.alpha.-adrenergic blockers**. Stimulation of parasympathetic outflow to the internal **anal sphincter** (2nd ventral sacral root, VS2) inhibited spontaneous elec. activity of the circular muscle, apparently through intramural nonadrenergic, noncholinergic (purinergic) **inhibitory** neurons. Rectal distension also inhibited **anal sphincteric** circular muscle via nonadrenergic, noncholinergic intramural neurons. Longitudinal muscle responses to VS2 or hypogastric nerve stimulation indicated that the muscle receives excitatory innervation from preganglionic parasympathetic nerves connected with intramural cholinergic neurons, and **inhibitory** sympathetic innervation from noradrenergic axons running in the hypogastric nerves. Responses of circular muscle to simultaneous VS2 and hypogastric nerve stimulation indicated that the release of noradrenaline from sympathetic nerves is modulated by muscarinic and nicotinic receptors located on noradrenergic nerve endings, which abolish and increase release, resp.
ST anus sphincter muscle innervation; nerve parasympathetic sympathetic anus sphincter; receptor anus sphincter muscle
IT Receptors
RL: PROC (Process)
(of anus sphincter muscle, characterization of)
IT Intestine
(anus, sphincter, parasympathetic and sympathetic nervous control of)
IT Nervous system
(parasympathetic, **anal sphincter** muscle regulation by)
IT Nervous system
(sympathetic, **anal sphincter** muscle regulation by)

L19 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2001 ACS

TI Effects of rectal distension on the internal **anal sphincter** of cats

AB The effect of i.v. autonomimetic drugs and blocking drugs on the contractions and relaxations of the internal **anal sphincter** were studied in anesthetized cats with a miniature air-filled intraluminal balloon placed in the middle 3rd of the rectum. Acetylcholine. . . by atropine. Noradrenaline [51-41-2] and adrenaline [51-43-4] produced biphasic responses of contraction and relaxation which were abolished by the .alpha.-receptor **blocker** dihydroergotamine tartrate. The relaxation response to isoprenaline [7683-59-2] was abolished by the .beta.-adrenergic **blocker** propranolol. A prolonged relaxation of the internal sphincter occurred upon rectal distension which was abolished by the ganglion **blocker** hexamethonium. These expts. suggest that the tone of the internal **anal sphincter** is under complex neural control involving cholinergic and **.alpha.-adrenergic** motor pathways and .beta.-adrenergic and noncholinergic nonadrenergic **inhibitory** pathways. Reflex responses to rectal distension are influenced by all of these mechanisms.

IT 51-41-2 51-43-4 51-84-3 7683-59-2
RL: BIOL (Biological study)
(internal **anal sphincter** contraction in response to)

ACCESSION NUMBER: 1972:522160 HCAPLUS
DOCUMENT NUMBER: 77:122160
TITLE: Effects of rectal distension on the internal **anal sphincter** of cats
AUTHOR(S): Garrett, J. R.; Howard, E. R.
CORPORATE SOURCE: King's Coll. Hosp. Med. Sch., London, Engl.
SOURCE: J. Physiol. (London) (1972), 222(1), 85P-86P
CODEN: JPHYA7
DOCUMENT TYPE: Journal
LANGUAGE: English

L34 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1981:100656 CAPLUS
DN 94:100656
TI Nervous control of the internal **anal** sphincter of the cat
AU Bouvier, M.; Gonella, J.
CS Dep. Neurophysiol. Veg., Inst. Neurophysiol. Psychophysiol., Marseille, 13274/2, Fr.
SO J. Physiol. (London) (1981), 310 457-69
CODEN: JPHYA7; ISSN: 0022-3751
DT Journal
LA English
CC 13-13 (Mammalian Biochemistry)
AB Hypogastric nerve stimulation elicited slow time course depolarization responses in **anal sphincteric** circular muscle of cats, which were abolished by **.alpha.-adrenergic blockers.** Stimulation of parasympathetic outflow to the internal **anal sphincter** (2nd ventral sacral root, VS2) inhibited spontaneous elec. activity of the circular muscle, apparently through intramural nonadrenergic, noncholinergic (purinergic) inhibitory neurons. Rectal distension also inhibited **anal sphincteric** circular muscle via nonadrenergic, noncholinergic intramural neurons. Longitudinal muscle responses to VS2 or hypogastric nerve stimulation indicated that the muscle receives excitatory innervation from preganglionic parasympathetic nerves connected with intramural cholinergic neurons, and inhibitory sympathetic innervation from noradrenergic axons running in the hypogastric nerves. Responses of circular muscle to simultaneous VS2 and hypogastric nerve stimulation indicated that the release of noradrenaline from sympathetic nerves is modulated by muscarinic and nicotinic receptors located on noradrenergic nerve endings, which abolish and increase release, resp.
ST anus sphincter muscle innervation; nerve parasympathetic sympathetic anus sphincter; receptor anus sphincter muscle
IT Receptors
RL: PROC (Process)
(of anus sphincter muscle, characterization of)
IT Intestine
(anus, sphincter, parasympathetic and sympathetic nervous control of)
IT Nervous system
(parasympathetic, **anal** sphincter muscle regulation by)
IT Nervous system
(sympathetic, **anal** sphincter muscle regulation by)

L24 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:74661 HCAPLUS
DN 126:152610
TI Effects of loperamide oxide on gastrointestinal transit time and anorectal function in patients with chronic diarrhea and **fecal incontinence**
AU Sun, W. M.; Read, N. W.; Verlinden, M.
CS Royal Adelaide Hospital, Adelaide, Australia
SO Scand. J. Gastroenterol. (1997), 32(1), 34-38
CODEN: SJGRA4; ISSN: 0036-5521
PB Scandinavian University Press
DT Journal
LA English
CC 1-9 (Pharmacology)
AB Loperamide improves anorectal function in patients with chronic diarrhea. We wished to investigate whether the prodrug loperamide oxide has similar effects. Eleven patients with chronic diarrhea and **fecal incontinence** participated in a randomized, placebo-controlled, double-blind, crossover study of the effects of loperamide oxide (4 mg twice daily for 1 wk). Loperamide oxide reduced wet stool wt. and improved the patients' ratings of symptoms. Mouth-to-cecum transit time was not altered, but whole-gut transit time was prolonged. There were limited effects on anorectal function, but the mean min. basal pressure mainly contributed by the internal anal **sphincter** (IAS) was increased, as was the mean vol. infused before leakage occurred in the saline continence test. Loperamide oxide is effective in the treatment of diarrhea with **fecal incontinence**; normalization of colon transit time and an increase in the tone of the IAS seem to be the main determinants of efficacy.
ST loperamide oxide antidiarrheal
IT Antidiarrheals
(effects of loperamide oxide on gastrointestinal transit time and anorectal function in humans with chronic diarrhea and **fecal incontinence**)
IT 106900-12-3, Loperamide oxide
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of loperamide oxide on gastrointestinal transit time and anorectal function in humans with chronic diarrhea and **fecal incontinence**)

L34 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS
AN 1999:186986 CAPLUS
DN 131:16909
TI Membrane properties and the neuro-effector transmission of smooth muscle cells in the canine internal **anal** sphincter
AU Kubota, Masayuki; Suita, Sachiyo; Szurszewski, Joseph H.
CS Department of Pediatric Surgery Faculty of Medicine, Kyushu University, Fukuoka, 812-8582, Japan
SO J. Smooth Muscle Res. (1998), 34(4), 173-184
CODEN: JSMRE2; ISSN: 0916-8737
PB Japanese Society of Smooth Muscle Research
DT Journal
LA English
CC 13-6 (Mammalian Biochemistry)
AB The most distal part of the circular muscle layer functions as the internal **anal sphincter**, which constitutes a high pressure zone at rest, but maintains a relaxed state during defecation. To elucidate such **sphincter** mechanisms of the smooth muscle cells, the circular muscle layer in the canine **anal** canal was examd. within 2 cm from the **anal** verge. Both the mech. and intracellular elec. activities were recorded simultaneously. The examd. region could be divided into three different regions according to the pattern of spontaneous activity and innervation and consisted of an upper region (20-15 mm from the **anal** verge), a transitional region (15-5 mm from the **anal** verge) and a lower region (within 5 mm from the **anal** verge), resp. The spontaneous membrane activity was characterized by ongoing slow potential changes and each potential change was assocd. with a phasic contraction in the three regions. The mean frequencies of spontaneous elec. activity were 6.8, 15.9, and 24.1 c/min in the upper, transitional and lower regions, resp. In the transitional and lower region, muscle tone generation was obsd. Transmural field stimulation (0.4 ms in pulse duration) evoked membrane depolarization and contractions in the lower region. The application of an .**alpha**.-**adrenergic blocking** agent completely suppressed the generation of excitatory responses, leaving a long-lasting hyperpolarization assocd. with relaxation. In the transitional and upper region, stimulation consistently evoked membrane hyperpolarization with relaxation. The characteristics of this hyperpolarization response varied among the three regions. The total duration of hyperpolarization increased distally, while the time to peak-hyperpolarization became decreases in a reverse direction. These regional differences in the characteristics of spontaneous membrane activity and innervation indicate that the transitional and lower region might therefore function as the internal **anal sphincter**
.
ST smooth muscle internal sphincter membrane property neurotransmission
IT Membrane potential
(biol.; membrane properties and the neuro-effector transmission of smooth muscle cells in the canine internal **anal** sphincter)
IT Polarization
(hyperpolarization, biol.; membrane properties and the neuro-effector transmission of smooth muscle cells in the canine internal **anal** sphincter)
IT Intestine
(internal **anal** sphincter; membrane properties and the neuro-effector transmission of smooth muscle cells in the canine internal **anal** sphincter)
IT Cell membrane
Muscle contraction
(membrane properties and the neuro-effector transmission of smooth muscle cells in the canine internal **anal** sphincter)

IT Muscle
(smooth; membrane properties and the neuro-effector transmission of smooth muscle cells in the canine internal **anal** sphincter)

RE.CNT 21
RE
(1) Aldridge, R; J Pediatr Surg 1968, V3, P475 MEDLINE
(2) Boeckxstaens, G; Br J Pharmacol 1993, V109, P1079 CAPLUS
(3) Chambers, M; Gut 1984, V25, P1268 MEDLINE
(4) Durdle, N; Gastroenterology 1983, V84, P375 MEDLINE
(5) Gazet, J; Br J Surg 1964, V51, P368
(6) Glavind, E; Am J Physiol 1997, V272, PG1075 CAPLUS
(7) Kubota, M; Gastroenterology 1984, V85, P1146
(8) Kubota, M; J Smooth Muscle Res 1986, V22, P224
(9) Kubota, M; Pflugers Arch 1982, V394, P355 MEDLINE
(10) Lawson, J; J Pediatr Surg 1967, V2, P544 MEDLINE
(11) Liu, L; Am J Physiol 1993, V264, PG64 CAPLUS
(12) Liu, L; Can J Physiol Pharmacol 1994, V72, P70 CAPLUS
(13) Llewellyn-Smith, I; Gastroenterology 1984, V87, P513 MEDLINE
(14) Shono, T; Jpn J Pediatr Surg (in Japanese with English abstract) 1988, V20, P357
(15) Smith, T; Am J Physiol 1987, V252, PC215 MEDLINE
(16) Smith, T; Am J Physiol 1987, V252, PC290 MEDLINE
(17) Smith, T; Am J Physiol 1989, V256, PC466 MEDLINE
(18) Thornbury, K; Am J Physiol 1991, V261, PG553 CAPLUS
(19) Tsunoda, A; Nippon Geka Gakkai Zasshi 1993, V94, P686 MEDLINE
(20) Ustach, T; J Clin Invest 1970, V49, P41 MEDLINE
(21) Ward, S; Am J Physiol 1991, V260, PG724 MEDLINE

L24 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2001 ACS
AN 1998:479406 HCAPLUS
DN 129:86054
TI Pharmaceutical composition for treating **fecal incontinence** and **anal itch**
IN Kamm, Michael Albert; Phillips, Robin Kenneth Stewart
PA UK
SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-00
ICS A61K031-135; A61K031-485; A61K031-195; A61K031-557; A61K031-40
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9827971	A1	19980702	WO 1997-GB3525	19971223
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9853315	A1	19980717	AU 1998-53315	19971223
	AU 728889	B2	20010118		
	EP 946155	A1	19991006	EP 1997-950311	19971223
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	JP 2001507020	T2	20010529	JP 1998-528550	19971223
PRAI	GB 1996-26739	A	19961223		
	GB 1996-26750	A	19961223		
	GB 1997-3309	A	19970218		
	WO 1997-GB3525	W	19971223		

AB **Fecal incontinence** and **anal itch** can be treated by administration, more particularly by local application to the anus, of an .alpha. adrenergic blocker, nitric oxide synthase inhibitor, prostaglandin F2.alpha., dopamine, morphine, .beta.-blockers, and 5-Hydroxytryptamine. The patients who benefit most from the invention are those who have a normal or low max. anal resting pressure and a structurally intact internal anal **sphincter** muscle, and patients who have had major bowel resection and reanastomosis. Phenylephrine-HCl was added to a base cream to form a compn.

ST pharmaceutical **fecal incontinence** anus itch

IT Intestine
(anus; pharmaceutical compn. for treating **fecal incontinence** and **anal itch**)

IT Drug delivery systems
(foams; pharmaceutical compn. for treating **fecal incontinence** and **anal itch**)

IT Feces
Ointments (drug delivery systems)
Sprays (drug delivery systems)
Suppositories (drug delivery systems)
Suspensions (drug delivery systems)
.alpha.1-Adrenoceptor agonists
.beta.-Adrenoceptor antagonists
(pharmaceutical compn. for treating **fecal incontinence** and **anal itch**)

IT 125978-95-2, Nitric oxide synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(inhibitors; pharmaceutical compn. for treating **fecal incontinence** and **anal itch**)

IT 50-67-9, 5-Hydroxytryptamine, biological studies 51-41-2, Noradrenaline 51-61-6, Dopamine, biological studies 57-27-2, Morphine, biological studies 59-42-7, Phenylephrine 61-76-7, Phenylephrine hydrochloride 390-28-3, Methoxamine 551-11-1, Prostaglandin F2.alpha. 2149-70-4, L-Ornithine, N5-[imino(nitroamino)methyl]- 35700-23-3, Carboprost 50903-99-6, L-NAME
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compn. for treating **fecal incontinence** and **anal itch**)

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AB . . . system in acclimatizing to high altitude in men. The purpose of this investigation was to det. the extent to which .alpha.-**adrenergic** blockade affects the sympathoadrenal responses to exercise during acute high-altitude exposure in women. Twelve eumenorrheic women (24.7.+-.1.3 yr, 70.6.+-.2.6 kg). . . at sea level (on sep. days) on a bicycle ergometer after 3 days of taking either a placebo or an .alpha.-**blocker** (3 mg/day prazosin). Subjects also performed two similar exercise tests while at altitude. Effectiveness of blockade was detd. by **phenylephrine** challenge. At sea level, plasma norepinephrine levels during exercise were 48% greater when subjects were .alpha.-blocked compared with their placebo. . . obsd. for plasma epinephrine levels during exercise. No phase differences were obsd. across any condition studied. It was concluded that .alpha.-**adrenergic** blockade resulted in a compensatory sympathoadrenal response during exercise at sea level and altitude, and this effect was more pronounced. . .

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AN 1990:509846 CAPLUS
DN 113:109846
TI Role of alpha adrenoceptors in opossum internal anal sphincter
AU Yamato, Shigeru; Rattan, Satish
CS Div. Gastroenterol., Beth Israel Hosp., Boston, MA, 02215, USA
SO J. Clin. Invest. (1990), 86(2), 424-9
CODEN: JCINAO; ISSN: 0021-9738
DT Journal
LA English
CC 2-8 (Mammalian Hormones)
AB The role of .alpha.-adrenoceptors in the internal anal sphincter (IAS) of opossum was studied. Resting pressure in the IAS (IASP) was recorded using low compliant continuously perfused catheters. The effects of the .alpha.1-adrenoceptor agonist phenylephrine and .alpha.2-adrenoceptor agonist clonidine and their corresponding selective antagonists, prazosin and yohimbine, resp., were examd. on the resting IASP, and on rectal balloon distension (RBD)-mediated IAS relaxation. Phenylephrine caused a rise in the IASP that was blocked by prazosin and not by yohimbine. Phenylephrine had no effect on IAS relaxation caused by RBD. Clonidine on the other hand caused significant suppression of IAS relaxation in response to RBD, but caused minimal changes in the resting IASP. The suppression of IAS relaxation by clonidine was selectively antagonized by yohimbine but not by prazosin. Thus, .alpha.2-adrenoceptors exert important neuromodulatory influences on rectoanal inhibitory reflex, whereas .alpha.1-adrenoceptors may exert modulatory effects on the resting IAS tone.
ST anus internal sphincter adrenergic receptor
IT Intestine
(anus, internal sphincter, function of, adrenergic receptors regulation of)
IT Receptors
RL: BIOL (Biological study)
(.alpha.1-adrenergic, internal anal. sphincter function regulation by)
IT Receptors
RL: BIOL (Biological study)
(.alpha.2-adrenergic, internal anal. sphincter function regulation by)